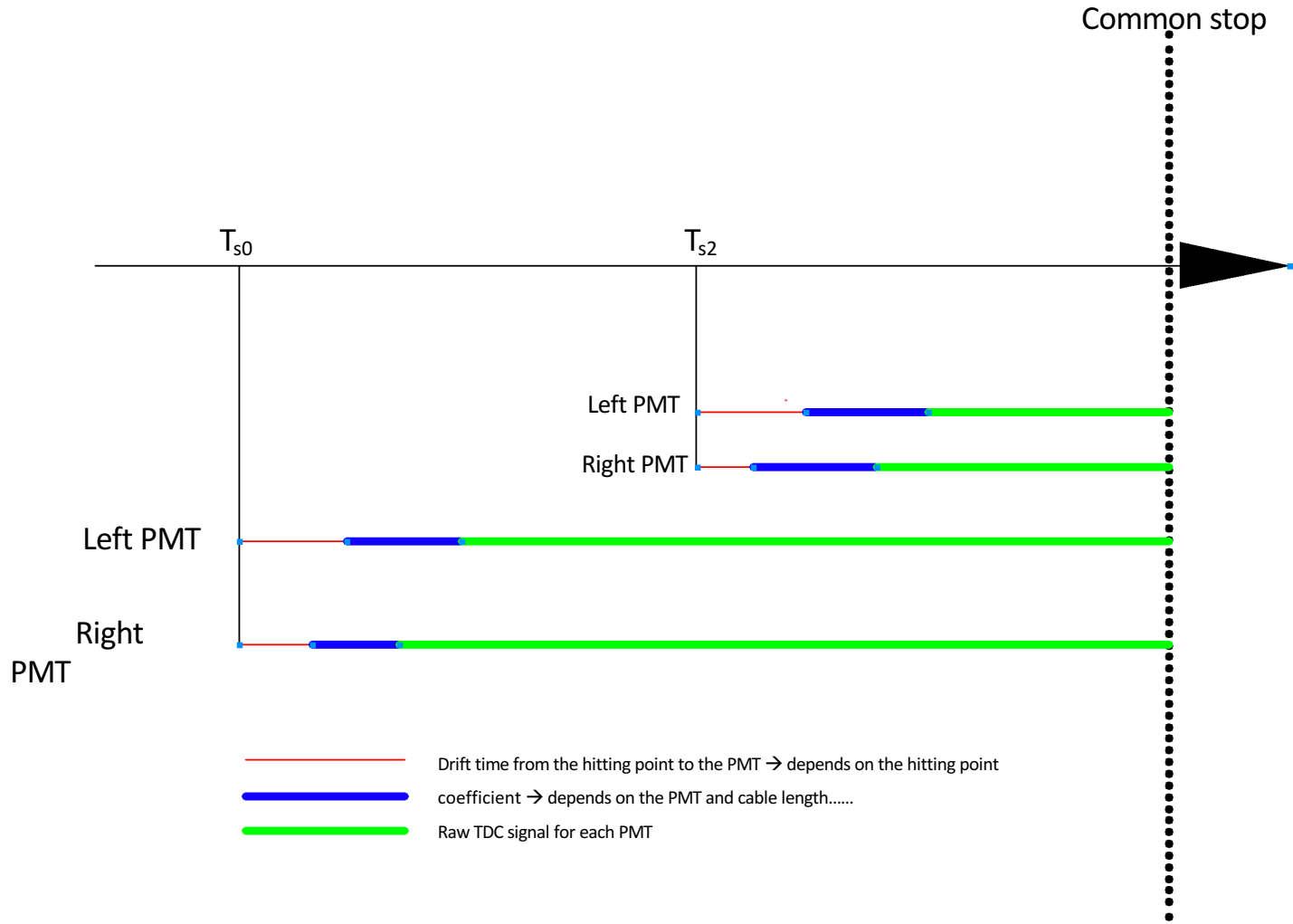


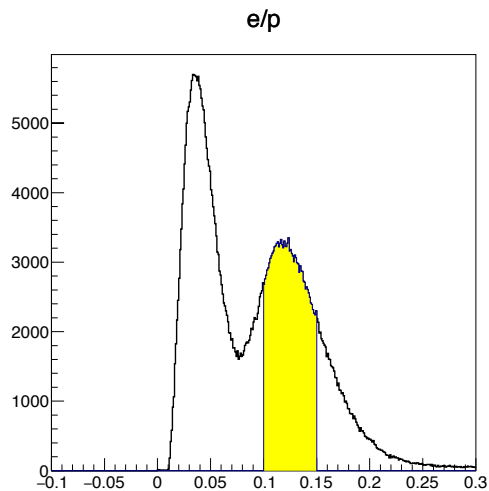
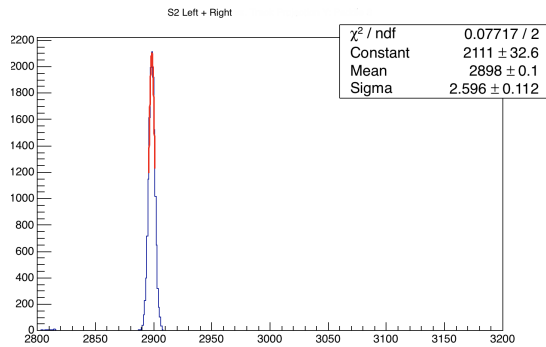
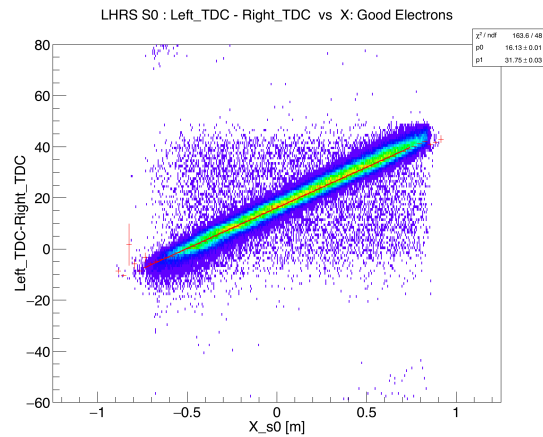
Timing calibration

Tong Su

04/11/2017

Single HRS



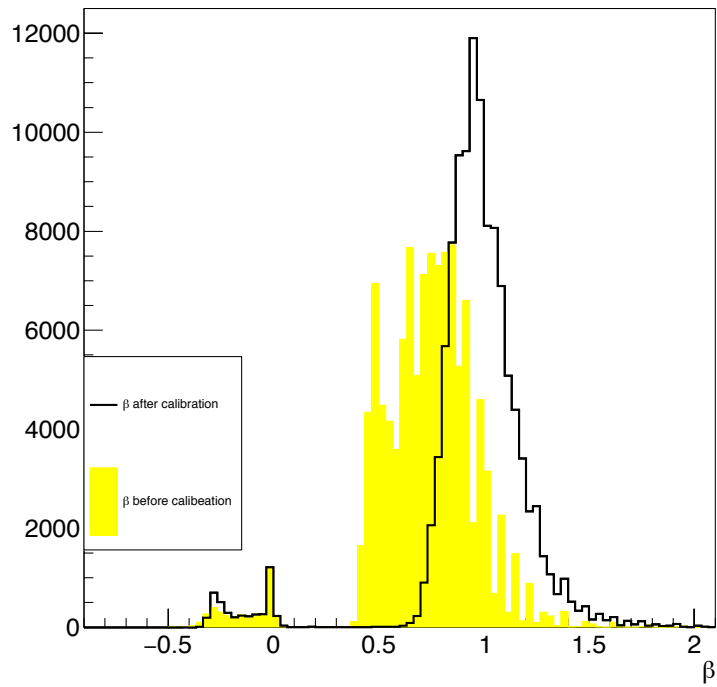


Basic procedure

- s0
 - Fix one s0 pmt coefficient
 - Determine another one using (s0_lt-s0_rt)
- s2
 - Select an pure particle sample in PID detector
 - using TOF from tracking and TOF from s0 and s2

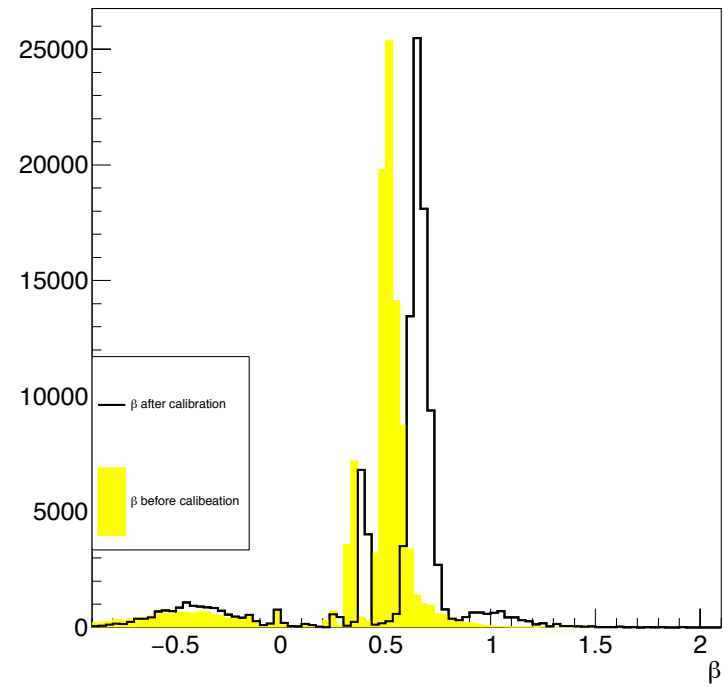
Left

β after calibration



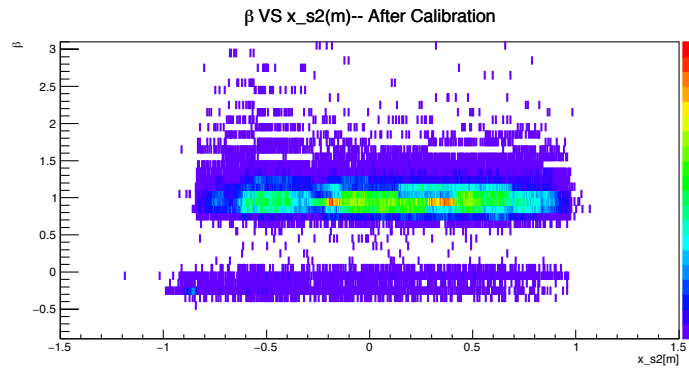
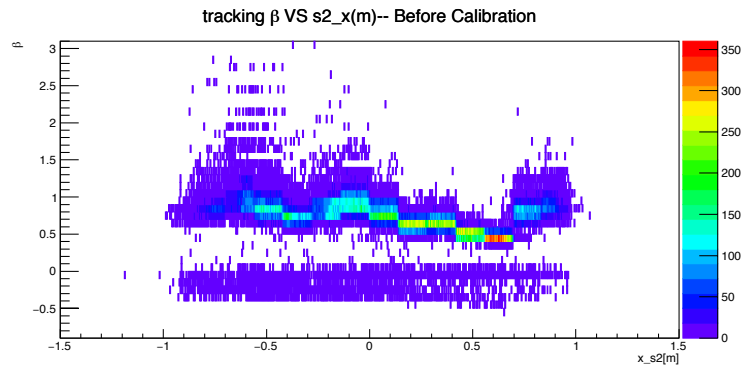
Right

β after calibration

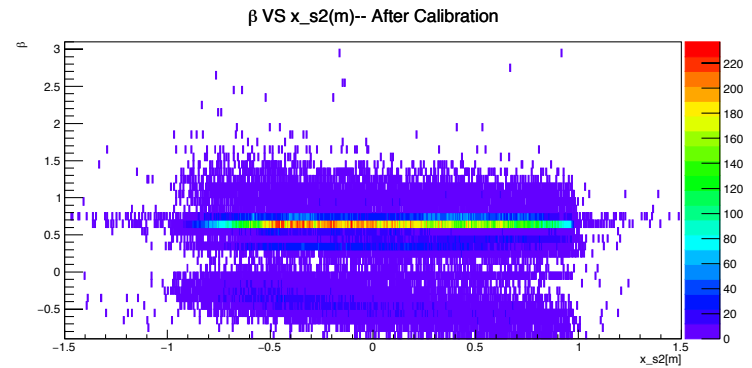
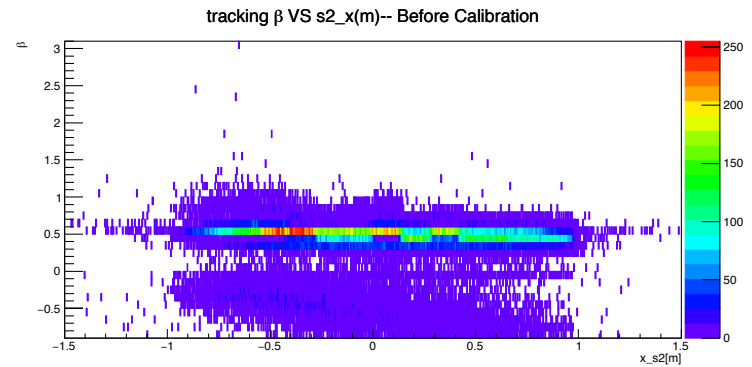


Beta VS s2_x

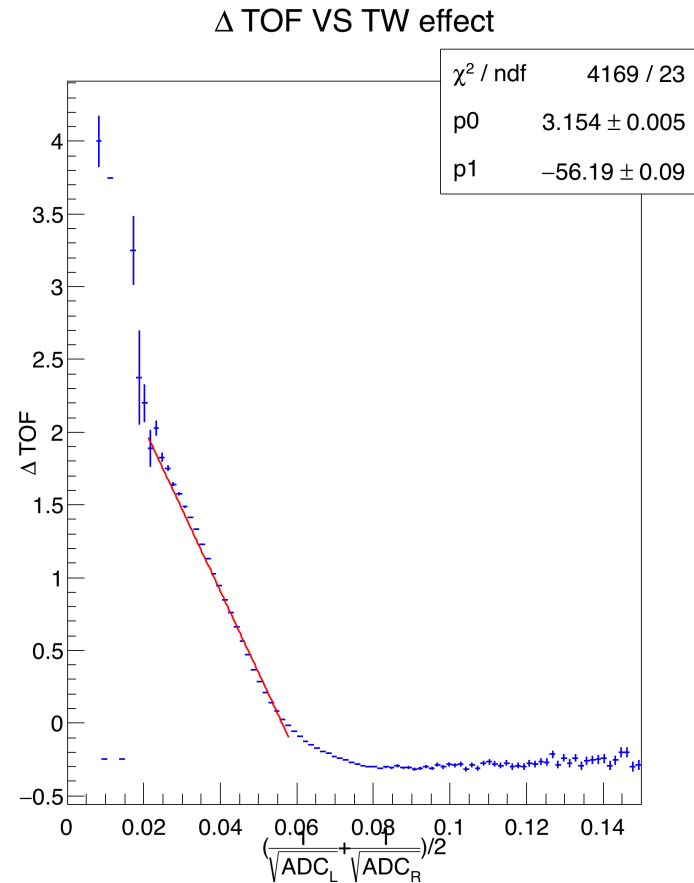
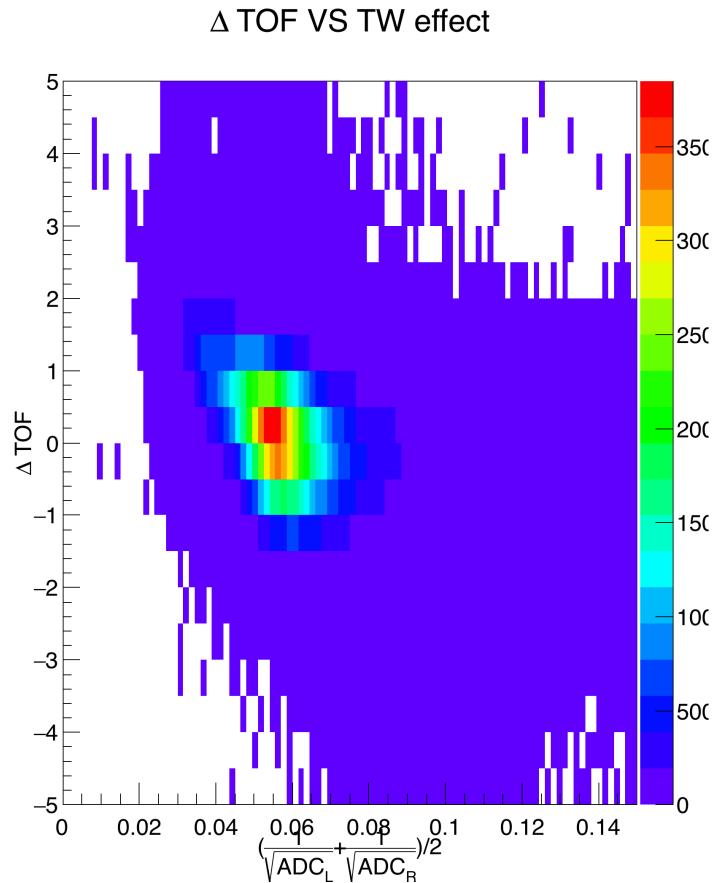
Left



Right



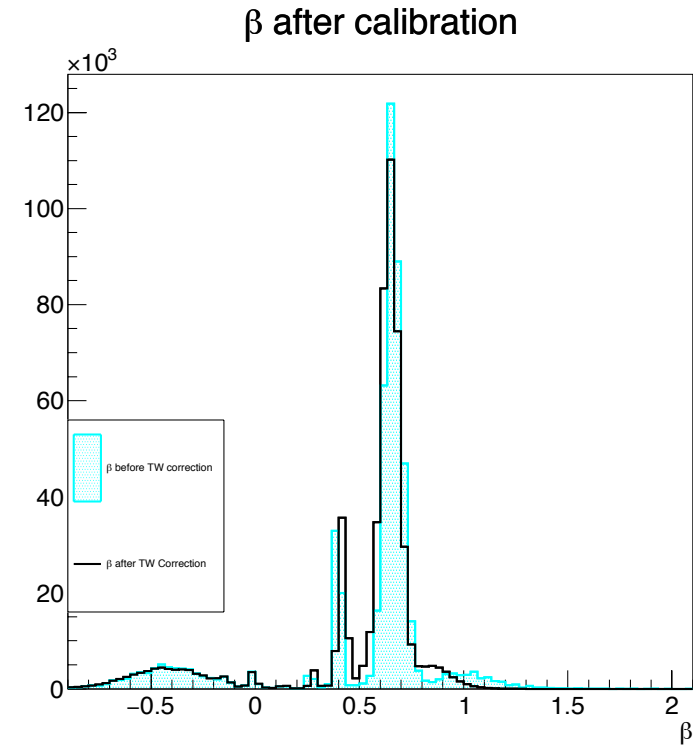
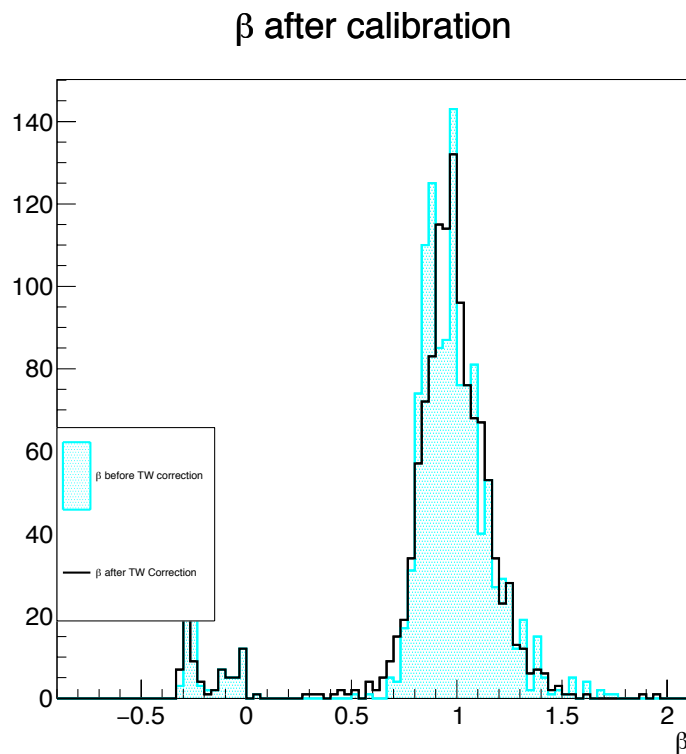
Time walk correction



Beta with TW correction

Right

Left



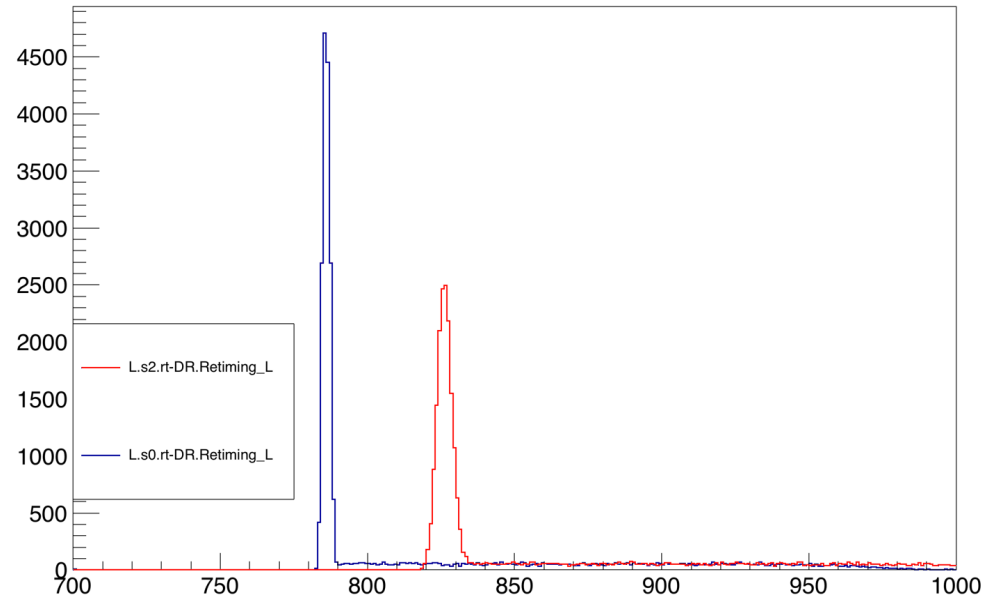
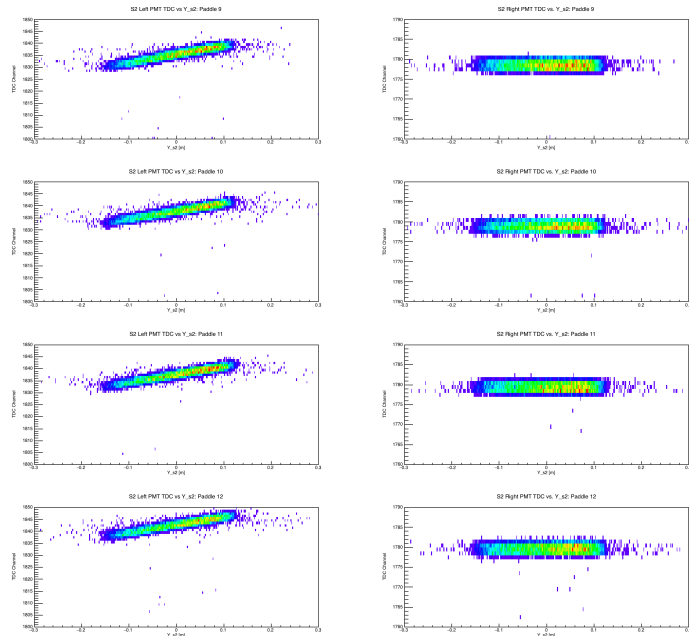
$$P_{0\text{-RHRS}}=915\text{MeV}$$

$$\beta_p=0.7$$

$$\beta_D=0.44$$

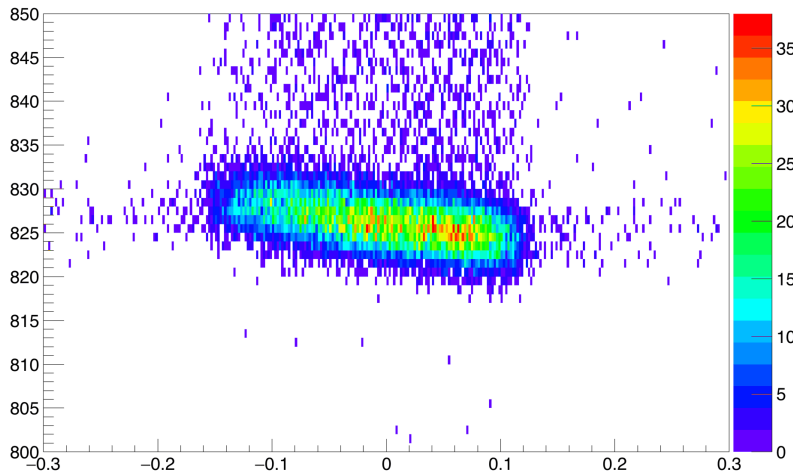
$$\beta_T=0.31$$

CK3



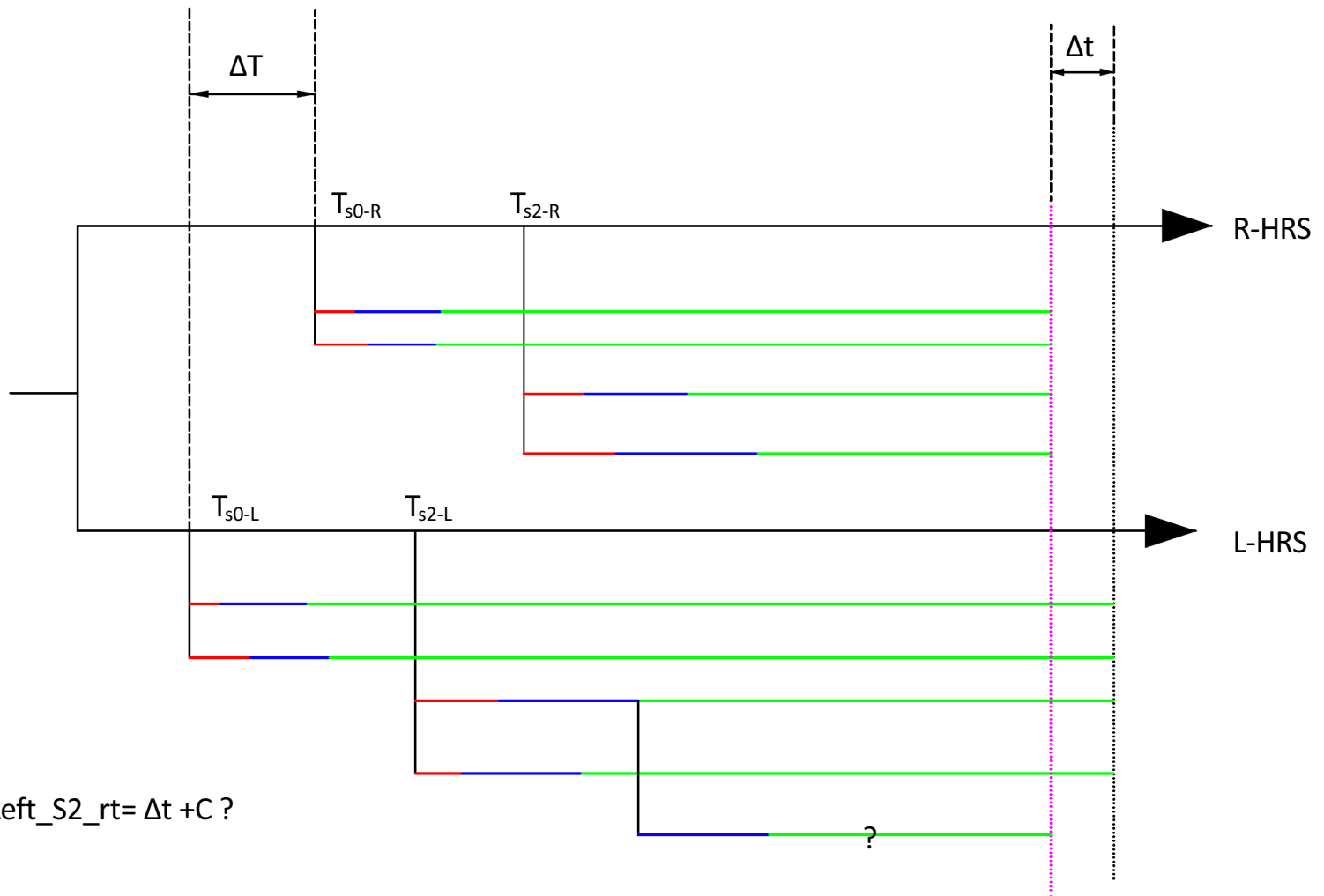
For LHRS right PMTs in S2 carry timing(both T1 and T3)

L.s2.rt-DR.Retiming_L



Right common stop depends on LHRS and DR.Retiming_L is leading by s0?

Check calibration with coincidence time



$$(L_s0_rt+L_s0_lt)-(R_s0_rt+R_s0_lt)-2(L_s2_rt-R_L1A)$$

ΔT

